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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/897,722	07/02/2001	Matthias Vierthaler	Micronas.6198	8165
7590	11/01/2004		EXAMINER	
Samuels, Gauthier & Stevens LLP Suite 3300 225 Franklin Street Boston, MA 02110			KIM, KEVIN	
			ART UNIT	PAPER NUMBER
			2634	

DATE MAILED: 11/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/897,722	VIERTHALER ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Kevin Y Kim	2634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 02 July 2001.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) 10-12 and 14-19 is/are allowed.
- 6) Claim(s) 1-9 and 13 is/are rejected.
- 7) Claim(s) 16 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 02 July 2001 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 16 objected to because of the following informalities: claim 16 recites “an RMS detector.” There is no definition of “RMS” in the specification although it is commonly understood as “root mean square” when it is used in detection of a signal level or energy. A full name of the “RMS” should be added. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 13 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 13 recites “an amplifier” that amplifies “said first absolute value signal.”

However, the specification fails to describe such an amplifier. Instead, the specification at page 7 line 20, discloses an amplifier amplifying the output of a low pass filter and then the absolute value of the amplified signal is taken. In other words, the sequence of amplification and absolute value processes disclosed in the specification is reversed in defining them in claim 13. Since the reversed sequence is not mentioned as equivalent to the disclosed sequence, the claimed invention is considered not usable to achieve the purported objective of the present invention.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, the “means for generating said control signal” recites “a third select spectral region,” which requires a recitation of “a second select spectral region” before the phrase in question. In light of the specification and drawing (Fig. 2), though, it is presumed that “a third select spectral region” is a typographical error of “a second select spectral region” and will be understood as such for examination purposes.

In claims 3 and 9, “said second select spectral region” lack a positive antecedent basis. But, considering that it further defines the “filter means” recited claim 1 for varying the first gain factor within “a first select spectral region,” the “said second select spectral region” is understood as “said first select spectral region.”

In claim 4, the filter means is further defined, among other things, as “generating a third signal.” However, since no “first” and “second” signals were previously recited, this description of a signal is confusing particularly in that “a first control signal” and “a second control signal” were recited. Moreover, this “third signal” can not be a “control” signal either because the gain impressed on it is controlled to vary, indicating it is an information signal. Therefore, for purposes of examination, “a third signal is understand as a part of the information

signal “representative of said portion signal.” I.e., the word “third” is deleted as it only adds confusion.

Claims 2, 5-8 are rejected for the same reason as they depend on a rejected base claim.

***Allowable Subject Matter***

6. Claims 10-12, 14-19 are allowed.
7. Claims 1-9 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.
8. The following is a statement of reasons for the indication of allowable subject matter: No prior art has been found to disclose an adaptive gain control device where the gain of an information signal within a selected spectral region is controlled as a function of the median frequency of the information signal in terms of signal energy.

***Drawings***

9. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character “18” has been used to designate both the input signal to and output signal from BPF (32). Specifically, Fig. 3 is a detailed drawing of the Frequency Detector (38) of Fig. 2. An input signal to the Frequency Detector is noted by reference numeral “34” in Fig. 2, but the same input signal is referred to by “18” in Fig. 3. Likewise, Fig. 4 has an input signal to the Frequency Detector with reference numeral “18.” Additionally, the Variable Filter, which is referred to by “38” in Fig. 2, is wrongly designated with reference numeral “18” in Fig. 4.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing

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sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hana (US 6,118,879) teaches variable gain control based on signal frequency.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Y Kim whose telephone number is 571-272-3039. The examiner can normally be reached on 8AM --5PM M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 571-272-3056. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

kvk

*Chieh M. Fan*  
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PRIMARY EXAMINER